

# **MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION PROJECT WATER RIGHT APPLICATION ATTACHMENT 1 PROJECT DESCRIPTION**

The Middle Creek Flood Damage Reduction and Ecosystem Restoration Project (Project) will restore 1,650 acres of open water, wetlands and floodplain previously reclaimed from Clear Lake. The lead agency on the Project is the U. S. Army Corps of Engineers (USACE) and the local sponsor is the Lake County Watershed Protection District (District)

As the Project will change the storage capacity of the lake, additional water can be stored within the watershed. The additional water stored will be utilized by municipal water suppliers drawing water from Clear Lake. In addition, the Project will eliminate flood risk to 18 residential structures, numerous outbuildings and approximately 1,650 acres of agricultural land and will restore damaged habitat and the water quality of the Clear Lake watershed. Reconnection of this large, previously reclaimed area, as a functional wetland is anticipated to have a significant affect on the watershed health and the water quality of Clear Lake.

The Project is located at the north end of Clear Lake in the area bounded by State Highway 20 and Rodman Slough, see Figure 1. Clear Lake is a large, natural, shallow, eutrophic lake. It is the headwaters of Cache Creek, a tributary of the Bay-Delta. The Scotts Creek and Middle Creek watersheds, which comprise approximately one half of the Clear Lake watershed, drain through Rodman Slough adjacent to the Project area. These two watersheds provide 57 percent of the inflow and 71 percent of the phosphorus loading to Clear Lake. Fourteen hundred acres of "reclaimed" wetlands are located in the Project area.

The Project will be constructed as follows:

- All land subject to inundation will be acquired in fee or by overflow and habitat conservation easement by the District. Lands that are below the normal "full" level of Clear Lake (7.56 feet Rumsey) will be acquired in fee. This is the portion of the Project that will be inundated for water supply storage. Areas above the normal full lake level, but within the one percent annual chance (100-year) flood, will be acquired in fee or with overflow easements. To date, the District has acquired seven residential parcels and has funding to acquire two additional residential parcels. The District has applied for additional funding to purchase the remaining properties.
- After the properties have been acquired, infrastructure in the Project area will be removed, relocated or reconstructed to continue functioning under the changed conditions. Environmental restoration features, such as channels and islands, will be constructed within the Project area to mimic the pre-European condition, encourage water flow through the Project site and provide biological diversity.
- Restoration of the Project will be completed by excavating breaches in the levees, currently estimated at eight, two hundred foot wide breaches, to allow reconnection of the previously reclaimed land to Rodman Slough and Clear Lake. Water levels in the Project area will be the same as in Clear Lake, however, lake storage will be increased approximately 5,900 acre-feet.

The proposed configuration of the completed Project is shown in Figure 2. The Stage-Capacity relationships for the Project and Clear Lake, both with and without the Project are shown in Figures 3 and 4, respectively.

Water stored within the Project will be junior to the pre-1914 water rights held by Yolo County Flood Control and Water Conservation District (YCFCWCD). The allowable storage available to YCFCWCD is regulated by court decrees "Milos M. Gopcevic, the Hotaling Estate Co., a corporation, and George T Ruddick vs. Yolo Water And Power Company, a corporation, and Yolo Water and Power Corporation, a

corporation, October 7, 1920” (Gopcevic Decree) and the “County of Lake vs. Yolo County Flood Control and Water Conservation District, April 21, 1978, amended March 30, 1995” (Solano Decree). The District is currently working with YCFCWCD to develop the required amendments to these decrees.

Clear Lake currently is operated as follows:

- Winter operation (November through March): This is the lake’s diversion season and the lake is permitted to fill. Due to the provisions of the Gopcevic Decree, the lake is allowed to fill to 7.56 feet Rumsey. An Operation Schedule (Schedule) is established to balance the needs of flood management and water storage for beneficial use. Prior to January 8, the lake stage is 5.5 feet Rumsey and increases to 7.56 feet Rumsey on March 15. If the lake stage is below the Schedule, water is required to be stored. If the lake is above the Schedule, water is required to be released through Cache Creek Dam to lower the lake stage to meet the fill curve. There are two exceptions:
  - Exception No. 1: When the lake level is a few tenths, not more than five, below the Schedule, and rains occur of sufficient intensity to indicate a sharp rise in the lake level, then such a rise should be anticipated and the gates opened.
  - Exception No. 2: When the lake level is a few tenths, not more than five, above the Schedule, and it appears that under the conditions existing at the time, the lake level will join the Schedule elevation in a few days, then the gates should be closed.
- Summer Operation (April through October): Water is drawn off during this time period by YCFCWCD for beneficial use downstream. The allowable Seasonal Withdrawal is determined according to the Solano Decree Operating Criteria which allots water based on the adjusted May 1 Clear Lake level (the level Clear Lake would be if no non-flood, downstream releases had been made). The allowable Seasonable Withdrawal varies from zero to 150,000 acre-feet when the adjusted May 1 level is at 3.22 to 7.54 feet Rumsey, respectively. The allowable Monthly Withdrawal is established as a percentage of the allowable Seasonal Withdrawal. Additionally, the Operating Criteria establish a series of Stage Limitation Curves that the lake shall not be lowered below. The Stage Limitation Curve for the season is based on the “no-withdrawal storage”. In addition, water for municipal use in Lake County and the Geysers Project is pumped directly from the lake by the water districts/companies on a year round basis.

The revised Clear Lake operation is proposed as follows:

- Winter Operation (November through March): No changes are proposed. As the overall storage of the lake will be increased, additional water will be stored in Clear Lake before the lake stage reaches the Operation Schedule. This will delay the onset of flood releases by approximately one day.
- Summer Operation (April through October): To ensure the water rights of YCFCWCD are not infringed, modification of the Solano Decree is required<sup>1</sup> to reflect the increased storage available in Clear Lake from the Project. For instance, the allowable Seasonal Withdrawal would be zero when the adjusted May 1 stage is 3.17 feet Rumsey and 150,000 acre-feet would be available if the adjusted May 1 stage is 7.40 feet Rumsey. The Stage Limitation Curves would also be adjusted accordingly to reflect the increased storage. Similarly, storage at 7.56 feet Rumsey is currently 313,860 acre-feet which corresponds to 7.41 feet Rumsey with the increased Project storage. Water would be available for storage in the Project if the Clear Lake stage exceeds 7.41 feet Rumsey and below 7.56 feet Rumsey, for a maximum of 5,568 acre-feet.

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<sup>1</sup> Negotiations on the specifics of the modifications to the Solano Decree are currently being negotiated by the District and YCFCWCD.

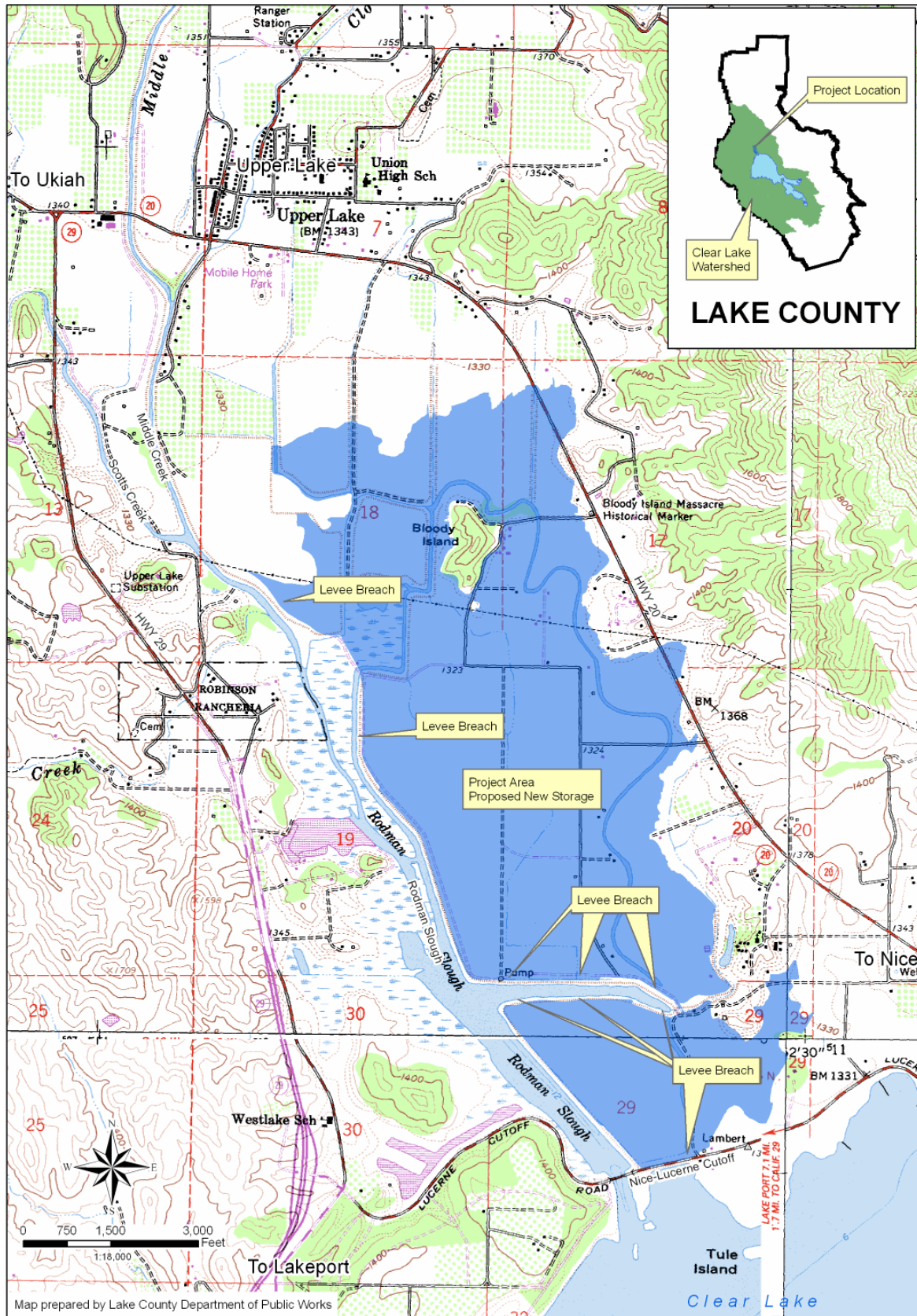
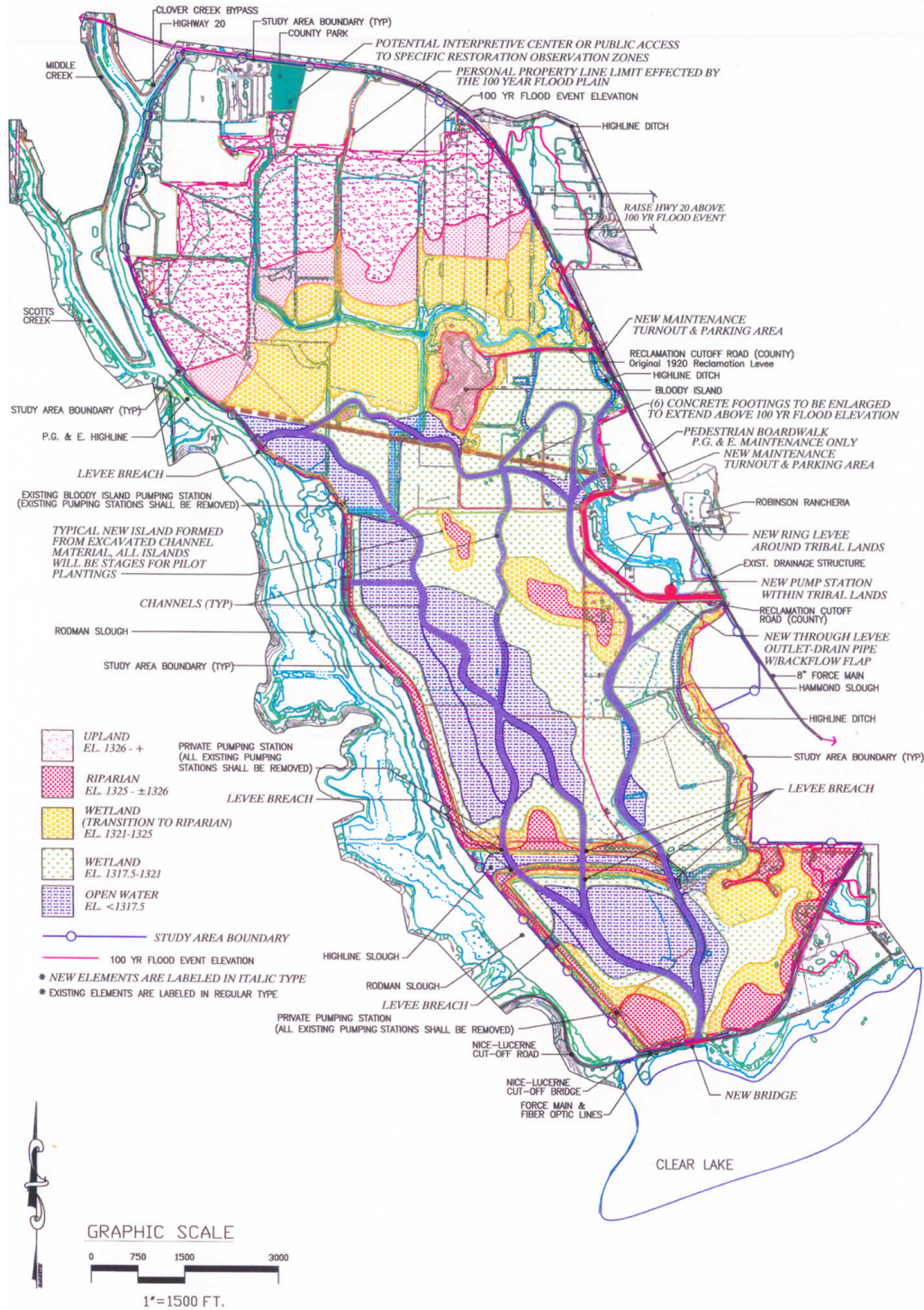


Figure 1: Location Map





MIDDLE CREEK, LAKE COUNTY, CALIFORNIA  
FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION  
**Restore Entire Robinson Lake Flood Plain**  
**ALTERNATIVE 2**

US Army Corps  
of Engineers  
Sacramento District

**PLATE 3**

Figure 2: Proposed Project

### MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION PROJECT STAGE - CAPACITY CURVE

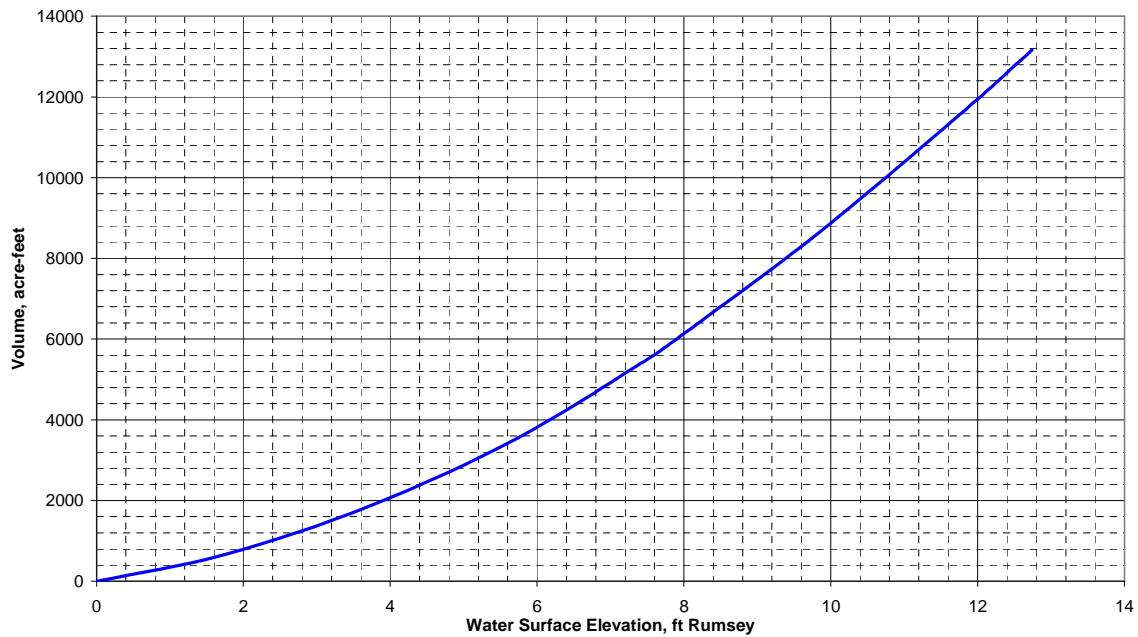


Figure 3: Project Stage – Capacity Curve

### CLEAR LAKE AND MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION PROJECT STAGE-CAPACITY RELATIONSHIPS

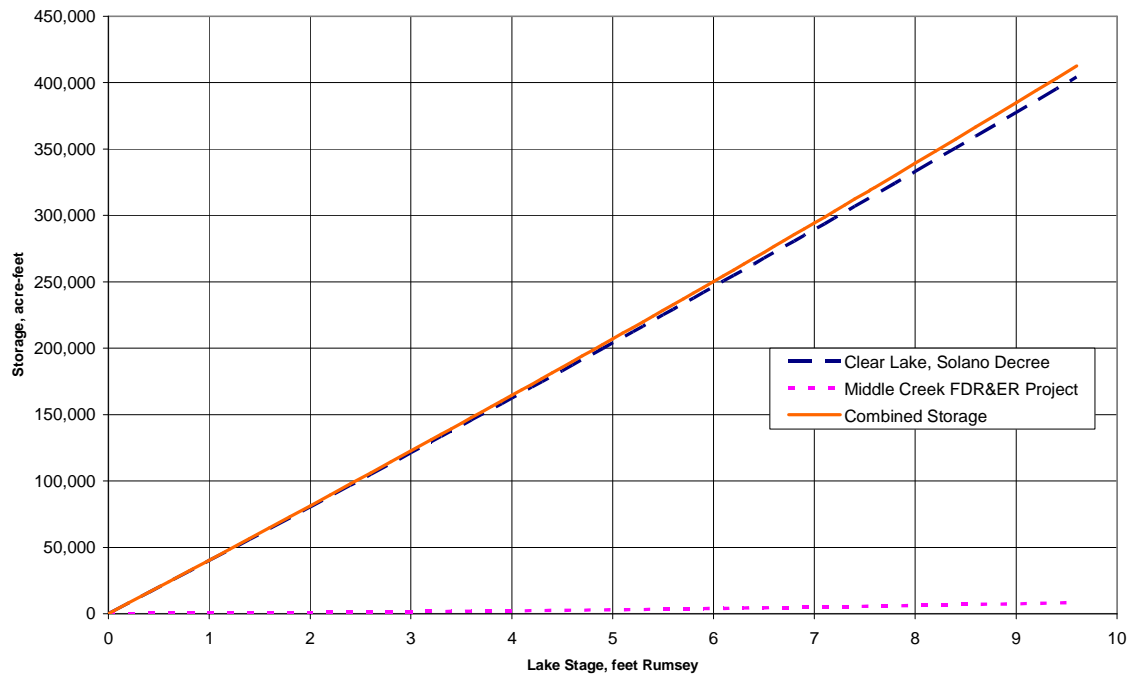


Figure 4: Clear Lake Stage-Capacity Relationships

**MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM  
RESTORATION PROJECT  
WATER RIGHT APPLICATION  
ATTACHMENT 2  
PURPOSE OF USE, DIVERSION/STORAGE AMOUNT AND SEASON**

Water storage will be within the historic bed of Clear Lake. This property was divided into parcels in the past. Following is a list a parcel numbers that intersect this storage area:

PARCELS		
004-013-05	004-016-05	004-021-29
004-013-06	004-016-11	004-021-30
004-013-08	004-016-13	004-021-31
004-013-09	004-016-14	004-021-34
004-013-10	004-016-18	004-021-40
004-013-11	004-016-20	004-022-01
004-013-12	004-016-23	004-022-02
004-013-15	004-016-31	004-022-03
004-013-17	004-016-32	004-022-07
004-013-18	004-016-33	004-022-08
004-013-19	004-016-34	004-022-12
004-014-04	004-016-35	004-022-13
004-014-05	004-016-43	004-022-24
004-014-06	004-019-02	004-022-34
004-014-11	004-019-19	004-025-01
004-014-12	004-019-20	031-031-09
004-014-13	004-019-21	031-041-32
004-014-14	004-019-22	201-010-02
004-014-15	004-020-10	201-010-05
004-014-17	004-020-12	201-030-01
004-014-19	004-021-15	201-030-04
004-014-20	004-021-18	201-030-05
004-015-02	004-021-19	
004-015-12	004-021-20	
004-015-13	004-021-21	
004-015-22	004-021-22	
004-015-26	004-021-24	
004-015-27	004-021-25	
004-016-02	004-021-27	
004-016-03	004-021-28	

At this time, the District has purchased Parcels 004-021-20, 21, 22, 28 & 31, and 004-022-03 & 24. Purchase is imminent for Parcels 004-021-25 & 30.

# **ATTACHMENT 3**

## **MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION PROGRAM**

### **WAA/CFII REPORT**

**TO:** Chief, Division of Water Rights, State Water Resources Control Board

**FROM:** Thomas R. Smythe, Water Resources Engineer

**DATE:** May 2, 2008

**SUBJECT:** WATER AVAILABILITY ANALYSIS (WAA) FOR APPLICATION OR  
PETITION ON APPLICATION OF LAKE COUNTY WATERSHED  
PROTECTION DISTRICT FOR THE MIDDLE CREEK FLOOD DAMAGE  
REDUCTION AND ECOSYSTEM RESTORATION PROJECT

#### **1.0 INTRODUCTION**

The purpose of this report is to summarize the results of the water availability analysis conducted for the subject application located within the Clear Lake watershed in Lake County. The objectives of the analysis are as follows:

- To provide information required under California Water Code section 1275 (a), 1375 (d), 1243, 1243.5 and California Code of Regulations, Title 23, section 782, to demonstrate whether water is available for appropriation; and
- To determine the impact of the applications/project on streamflow in order to evaluate potential impacts to Public Trust Resources and provisions for compliance with various federal and state requirements. Examples include the California Environmental Quality Act (CEQA), the California Endangered Species Act (CESA), California Fish and Game Code and the federal Endangered Species Act (ESA).

#### **2.0 PROJECT DESCRIPTION**

The Middle Creek Flood Damage Reduction and Ecosystem Restoration Project (Project) will restore 1,650 acres of open water, wetlands and floodplain previously reclaimed from Clear Lake. The lead agency on the Project is the U. S. Army Corps of Engineers (USACE) and the local sponsor is the Lake County Watershed Protection District (District)

As the Project will increase the storage capacity of the lake by 5,900 acre-feet, additional water can be stored within the watershed. The additional water stored will be utilized by municipal water supplies drawing water from Clear Lake.

In addition, the Project will eliminate flood risk to 18 residential structures, numerous outbuildings and approximately 1,650 acres of agricultural land and will restore damaged habitat and the water quality of the Clear Lake watershed. Reconnection of this large, previously reclaimed area, as a functional wetland is anticipated to have a significant affect on the watershed health and the water quality of Clear Lake.

The Project is located at the north end of Clear Lake in the area bounded by State Highway 20 and Rodman Slough, see Figure 1. Clear Lake is a large, natural, shallow, eutrophic lake. It is the headwaters of Cache Creek, a tributary of the Bay-Delta. The Scotts Creek and Middle Creek watersheds, which comprise approximately one half of the Clear Lake watershed, drain through Rodman Slough adjacent to the Project area. These two watersheds provide 57 percent of the inflow and 71 percent of the phosphorus loading to Clear Lake. Fourteen hundred acres of "reclaimed" wetlands are located in the Project area.

The Project will be constructed as follows:

- All land subject to inundation will be acquired in fee or by overflow and habitat conservation easement by the District. Lands that are below the normal "full" level of Clear Lake (7.56 feet Rumsey) will be acquired in fee. This is the portion of the Project that will be inundated for water supply storage. Areas above the normal full lake level, but within the one percent annual chance (100-year) flood, will be acquired in fee or with overflow easements. To date, the District has acquired seven residential parcels and has funding to acquire two additional residential parcels. The District has applied for additional funding to purchase the remaining properties.
- After the properties have been acquired, infrastructure in the Project area will be removed, relocated or reconstructed to continue functioning under the changed conditions. Environmental restoration features, such as channels and islands, will be constructed within the Project area to mimic the pre-European condition, encourage water flow through the Project site and provide biological diversity.
- Restoration of the Project will be completed by excavating breaches in the levees, currently estimated at eight, two hundred foot wide breaches, to allow reconnection of the previously reclaimed land to Rodman Slough and Clear Lake. Water levels in the Project area will be the same as in Clear Lake, however, lake storage will be increased approximately 5,900 acre-feet.

Water stored within the Project will be junior to the pre-1914 water rights held by Yolo County Flood Control and Water Conservation District (YCFCWCD). The allowable storage available to YCFCWCD is regulated by the Gopcevic Decree<sup>2</sup> and the Solano Decree<sup>3</sup>. As the Clear Lake watershed is fully appropriated during winter months, the only water available for storage are "flood waters" that are in excess of that needed to satisfy the water right of YCFCWCD. In order to satisfy the water rights of YCFCWCD, one or both of these decrees will require

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<sup>2</sup> In the Superior Court of the State of California, In and For the County of Mendocino, Milos M. Gopcevic, the Hotaling Estate Co., a corporation, and George T Ruddick vs. Yolo Water And Power Company, a corporation, and Yolo Water and Power Corporation, a corporation, October 7, 1920

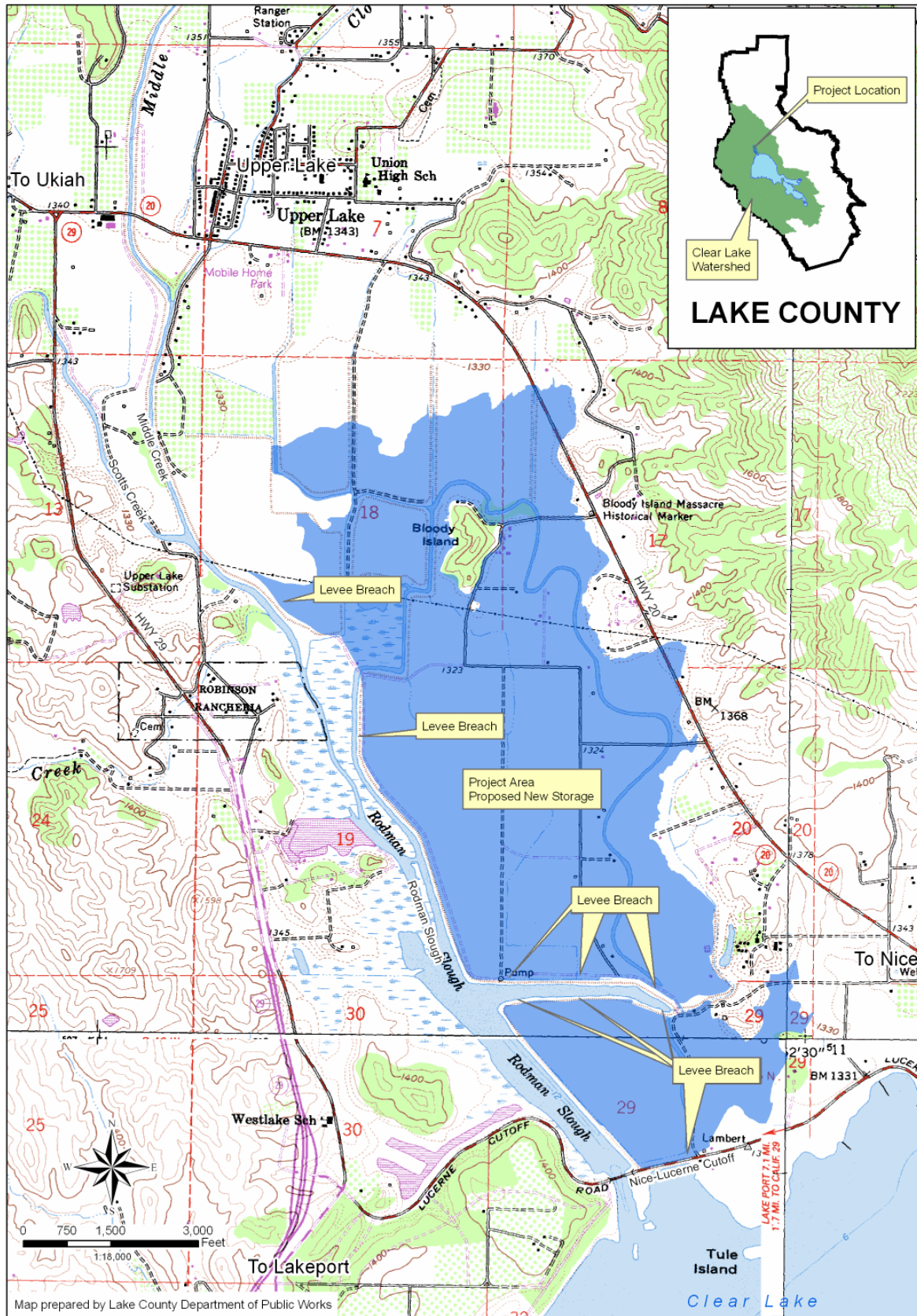
<sup>3</sup> In the Superior Court of the State of California, In and For the County of Solano, County of Lake vs. Yolo County Flood Control and Water Conservation District, April 21, 1978, amended March 30, 1995



modification. The District is currently working with YCFCWCD to develop the required amendments to these decrees.

Water stored in the Project during high runoff years will be utilized for municipal water supplies which currently obtain their raw water from Clear Lake. These water districts/companies currently purchase water from YCFCWCD. The additional water will supplement the currently available water.

Figure 1 shows the location of the Clear Lake watershed, the Project's points of diversion, and other features in the area. The project is located in Lake County approximately two miles south of the town of Upper Lake. The application seeks to store 5,900 acre-feet (af) of water in the restored bed of Clear Lake during the season of November 1 to May 1. The application requests diversion to storage for the purposes of municipal water supply and environmental restoration.



## **Figure 1**

### **2.1 Points of Interest (POI)**

This section will be added after the Division of Water Rights identifies the Points of Interest.

## **3.0 METHODS**

Diversion of water for the Project will be directly from the Clear Lake watershed. Clear Lake is a natural lake, which has been regulated by Cache Creek Dam since 1914. Clear Lake's operation is regulated by two court decrees, the Gopcevic and Solano Decrees. The Decrees regulate the operation of the lake as follows:

The Gopcevic Decree, copy attached, includes the following:

- Establishes that the water rights of Yolo Water and Power Company (previous holder of water rights of YCFCWCD) are between elevation Zero and 7.56 feet Rumsey Gauge.
- Prohibits raising Clear Lake to a level above 7.56 feet Rumsey for a period in excess of ten successive days, and in no case raising the level above 9.00 feet Rumsey. Because of the physical characteristics of the watershed and the Cache Creek outlet channel, meeting these criteria is impossible without major physical enlargement of the Cache Creek outlet channel, which is prohibited by the Bemmerly Decree<sup>4</sup>.
- Prohibits drawing the lake, inclusive of evaporation and other losses, below Zero Rumsey.
- The State Railroad Commission of California was established as the regulatory authority for this decree. The State Railroad Commission established an Operation Schedule (Schedule) that requires winter releases when the level of Clear Lake exceeds the level on the Schedule. The Schedule requires releases occur if the Clear Lake stage exceeds 5.50 feet Rumsey prior to January 8, with stages increasing until March 15 when the stage requiring release is 7.56 feet Rumsey. Exceptions are provided which allow flexibility in operations when levels are within 0.5 feet of the Schedule.

The Solano Decree, copy attached, establishes Clear Lake Operating Criteria, which include:

- Seasonal Withdrawal is determined based on the adjusted May 1 level of Clear Lake. The Seasonal Withdrawal is the amount of water available for use within Lake and Yolo Counties. The maximum seasonal withdrawal is 150,000 acre-feet when the adjusted May 1 level of Clear Lake is at or above 7.54 feet Rumsey.
- An additional withdrawal is permitted for use by Lake County Sanitation Districts for the Geysers Project. This additional withdrawal is not included in the Seasonal Withdrawal discussed above.
- Monthly Withdrawals are established as a percentage of the Seasonal Withdrawal for each month from April through October.
- Releases made entirely for flood control as required by the Gopcevic Decree shall not be deemed part of the Seasonal Withdrawal.

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<sup>4</sup> In the Superior Court of the State of California, In and For the County of Yolo, Mary E. Bemmerly and Agnes H. Bemmerly vs. The County of Lake, December 18, 1940

- Stage Criteria are established based on the adjusted May 1 lake level. Monthly withdrawals can be made, providing the Clear Lake stage will not be reduced below the minimum established from the Stage Limitation Curves.

Because of the Project's location and the court regulated levels of Clear Lake, the standard methodologies for water availability analyses, including Unimpaired Natural Flow do not apply to this Project. We propose the Project operate as follows<sup>5</sup>:

- Winter operation as regulated by the Operation Schedule established by the State Railroad Commission will not be changed. Because of the increased storage capacity in the Project, additional water will be stored prior to flood releases being required. Because of the additional storage, the start of flood releases will be delayed by approximately one day and flood releases will be marginally smaller due to a slightly decreased lake level (approximately 0.1 feet) for the remaining period of flood releases.
- The Project will increase the operational capacity of Clear Lake (between Zero and 7.56 feet Rumsey) by 5,568 acre-feet from 313,860 acre-feet<sup>2</sup> (150,000 acre-feet is available for consumptive use) to 319,428 acre-feet. Because of the increase in storage, the full allocation of 150,000 acre-feet would be reached at a lower stage of approximately 7.40 feet Rumsey. The entire table entitled "Allowable Seasonal Withdrawal From Clear Lake" in the Solano Decree will be revised to reflect the increased storage capacity of Clear Lake. Additionally, the No-Withdrawal and Stage Limitation Curves will be revised. This will insure YCFCWCD receives their full water allocation as it currently exists.
- Only water stored in the enlarged Clear Lake between approximately 7.41 and 7.56, 5,568 acre-feet, would be available for use by the District. Because of the increased surface area increasing evaporation, the limited Monthly Withdrawals and the Stage Limitation Curves as modified by the Solano Decree, only a portion of the 5,568 acre-feet of increased storage would be available for consumptive use.

In order to determine which years additional storage in the Project would be available for consumptive use by the District, an analysis was made of the USGS gage records for Clear Lake at Lakeport CA<sup>6</sup> (ID 11450000) and Cache Creek near Lower Lake CA (ID 11451000). The records indicate when the Clear Lake stage requires a flood release and the quantity of that release from Cache Creek Dam as quantified by the gage on Cache Creek. The analysis was completed for Water Years 1945 through 2007 for which data was available for both gages. A spreadsheet with the results of the analysis follows. The analysis has the following assumptions and limitations:

- A normal release of 200 acre-feet per month was allowed for winter releases from 1945 through 2004. Because of increased winter releases in 2005 through 2006, the normal release allocation was increased to 400 acre-feet per month.
- The operational records for Capay Dam (diversion point for YCFCWCD) were not reviewed, therefore, the late season releases (April and May) considered flood releases for this analysis

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<sup>5</sup> The details of lake operation, including revisions to the appropriate decree(s), are currently being negotiated between the District and YCFCWCD.

<sup>6</sup> For the water years 1983 and 1984, the USGS gage Clear Lake at Clearlake Highlands CA (ID 11450150) was utilized

may include some amount of water diverted for irrigation at Capay Dam or may not include all flood releases.

- Only flood flows after March 10 were considered to be available for storage in the Project.

The discrepancies in the analysis introduced by the above assumptions and limitations are not significant, as for each year when flood releases occurred, the flood release was significantly greater (smallest flood release was 34,710 acre-feet in 2002) than maximum storage in the Project (5,900 acre-feet).

Based on this analysis we offer the following conclusions:

- Between 1945 and 2007, the full water rights of YCFCWCD and the Project would have been met in 38 of the 67 years, or 57 percent of the time. In four of these years, late season flood flows may not be available to fully meet the District's requested water rights.
- Between 1979 and 2007 (present operating criteria and climate), the full water rights of YCFCWCD and the Project would have been met in 18 of the 29 years, or 62 percent of the time. In two of these years, late season flood flows may not be available to fully meet the District's requested water rights.
- The pre-1914 water rights on Clear Lake were met in all years where flood releases occurred, with the following exceptions:
  - 1946: Flood releases occurred from January 4 through January 14. The Clear Lake stage was 6.00 feet Rumsey on January 4 and 5.90 feet Rumsey on January 14 and was above the Operation Schedule through the entire period, therefore, the flood releases were required by the Gopcevic Decree. If the Project was in place at the time, approximately 4,000 acre-feet (the Project volume between Zero, the low for the year, and 5.90 feet Rumsey) of additional water would have been stored in Clear Lake.
  - 1959: Flood releases occurred on February 16 through 24. The Clear Lake stage was 6.55 feet Rumsey on February 16 and 7.06 feet Rumsey on February 24, with a peak of 7.23 feet Rumsey on February 20, above the Operation Schedule. If the Project was in place at the time, approximately 3,400 acre-feet (the Project volume between 3.33 feet Rumsey, the low for the year, and 7.06 feet Rumsey) of additional water would have been stored in Clear Lake.
  - 2002: Flood releases occurred on January 4 through 14. The Clear Lake stage was 5.58 feet Rumsey on January 4 and 5.77 feet Rumsey on January 14, with a peak of 5.91 feet Rumsey on January 8 and 9, above the Operation Schedule. If the Project was in place at the time, approximately 3,170 acre-feet (the Project volume between 0.89 feet Rumsey, the low for the year, and 5.77 feet Rumsey) of additional water would have been stored in Clear Lake.
- In 1997, March releases were not sufficient to provide the additional storage. If the Project had been in place, the additional storage would have been satisfied by high flows/lake levels earlier in the season and flood flows could have been curtailed several days earlier.
- In the years that flood releases occurred, the average flood releases are 171,361 acre-feet per year.
- The average annual outflow from the dam, including both irrigation and flood releases is 277,587 acre-feet.



In conclusion, there is sufficient runoff within the Clear Lake watershed to meet the District's water right request in over 50 percent of the water years analyzed.

#### **4.0 ANNUAL UNIMPAIRED FLOW**

As the diversion point is directly from Rodman Slough and Clear Lake, the logical location to evaluate unimpaired flow would be at Clear Lake and at the Cache Creek Dam. Prior to the construction of the Cache Creek Dam in 1914, flows from Clear Lake were regulated by the configuration of the Grigsby Riffle and the reach of Cache Creek between Clear Lake and the Riffle (the Outlet Channel). The Outlet Channel and the Riffle were modified by dredging and channelization in 1912 and in 1939, changing the natural flow characteristics, in addition to the construction of the Dam in 1914. Operation of Clear Lake and the Cache Creek Dam are regulated by the Gopcevic and Solano Decrees, and are managed by YCFCWCD.

Attached is a copy of a simulation of the natural conditions of Clear Lake from 1901 through 1985, including a November 21, 1986 Murray, Burns and Kienlen Memorandum describing the model data assumptions and the basis of the simulation. This includes the unimpaired outflow of Clear Lake and the water levels of Clear Lake. Inclusive with the analysis are the observed water levels of Clear Lake and the outflow of the lake. The sources of the observed data are numerous and are described in the memorandum.

Based on this analysis, the average annual runoff in the Clear Lake watershed is 415,000<sup>7</sup> acre-feet and the average annual outflow from the lake is 268,450 acre-feet.

Because the outlet channel has been modified and Clear Lake is regulated by Clear Lake Dam, a second analysis of the Project's impact on lake operations is being developed. A copy of this analysis will be submitted when it becomes available.

The Project will have small affects on the Clear Lake stage and will decrease the flood flows released from Cache Creek Dam for those flood releases, by delaying the start of flood releases by approximately one day and the resulting slightly lower lake levels (approximately 0.1 feet) throughout the period of flood releases.

#### **5.0 UNIMPAIRED FLOW DURING THE PROJECT'S DIVERSION SEASON**

The unimpaired flow analysis above was based on monthly flows and lake levels. From the above analysis, the following table shows the unimpaired end of month lake level, unimpaired outflow, the observed end of month lake level and the observed flow for the diversion season.

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<sup>7</sup> The Unimpaired Flow analysis does not estimate evaporation or in lake uses of water, therefore, lake inflow is estimated by adding evaporation losses (3.5 ft / year x 42,000 acres) to the average annual outflow.

Month	Unimpaired Flow Analysis		Observed Data	
	EOM Lake Level, ft R	Flow, acre-feet	EOM Lake Level, ft R	Flow, acre-feet
November	2.05	2,750	1.73	1,260
December	3.25	7,080	2.95	6,245
January	5.10	21,510	4.59	28,737
February	6.48	42,900	5.98	45,265
March	6.71	59,350	6.46	48,509

## 6.0 BYPASS FLOW

The diversion is directly from Clear Lake, which is regulated by Cache Creek Dam, which is owned and operated by YCFCWCD. The operation of Clear Lake and Cache Creek Dam are regulated by the Gopcevic and Solano Decrees. For these and other reasons stated below, the concept of maintaining a minimum bypass flow is not applicable.

A total of up to 5,900 acre-feet per year of water is requested to be stored in the Project. The average annual storage would be significantly less than this as there will be carryover storage nearly every year and full storage will not be realized every year. Using the unimpaired flow analysis for 1901 through 1985, the Clear Lake watershed has an estimated annual outflow of 268,450 acre-feet and an outflow of 139,590 acre-feet during the allowable diversion season of November to March. The observed average annual outflow is 266,060 acre-feet and an outflow of 130,016 acre-feet during the allowable diversion season of November to March.

Because of the senior water rights controlled by YCFCWCD, the Project will only provide additional storage when the water rights of YCFCWCD are met. Currently this is when Clear Lake reaches a stage of 7.56 feet Rumsey and flood releases are required by the Gopcevic Decree. Flood releases from Clear Lake are typically in excess of 2,500 cfs and are combined with high flows downstream within Cache Creek. Only flood flows are permitted in the November to March season, which is the also the Project's diversion season. During the period of flood releases, maintenance of minimum instream flows is not a critical issue.

## 7.0 CUMULATIVE FLOW IMPAIRMENT INDEX (CFII)

As maintenance of minimum bypass flows is not an issue with this Project, the Cumulative Flow Impairment Index will be computed after Water Rights Division staff and Department of Fish and Game staff have provided input for this analysis.

# MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION PROJECT

## WATER AVAILABILITY ANALYSIS

May 1, 2008

						Flood Releases (allow 200 AF/mo for normal release)									
Water Year	Month	High Lake Level	Pre-1914 Water Rights Met	Project Storage Available, Full (F), Partial (P), None ( )	Total Annual Releases, AF	Total Winter Releases as required by Gopcevic, AF	Nov	Dec	Jan	Feb	Mar	Apr	May	Comments	
1945	Apr.	5.82			134,296	0									
1946	Apr.	7.23		P	207,561	39,128			39,128						
1947	Apr.	3.41			31,565	0									
1948	May	4.62			77,532	0									
1949	Apr.	5.95			115,545	0									
1950	Apr.	4.65			84,415	0									
1951	Mar.-Apr.	7.56		Y	244,918	108,046			36,864	49,539	21,643			Flood releases 3/17-3/26 of 7,200 AF	
1952	Feb.	8.08	Y	Y	460,906	311,694			117,548	126,129	68,017				
1953	Jan.	7.81	Y	Y	294,944	157,224			122,521	24,876	9,827				
1954	Apr.	7.67	Y	Y	228,484	108,415					63,109	45,306			
1955	Mar.	4.71			105,192	0									
1956	Feb.	9.53	Y	Y	549,036	439,930		18,715	166,074	149,368	105,773				
1957	Apr.	7.06			114,894	0									
1958	Feb.	10.86	Y	Y	741,342	668,310			28,761	199,952	229,248	210,349			
1959	Apr.	7.48		P	155,363	43,058				43,058					
1960	Apr.	6.71			101,270	0									
1961	Apr.	7.18			104,975	0									
1962	Mar.	7.75	Y	Y	175,272	56,968					56,968				
1963	Apr.	8.2	Y	Y	285,460	194,176			3,626	7,781	34,913	147,856			
1964	Mar.	5.88			113,393	0									
1965	Jan.	9.03	Y	Y	382,761	288,420		34,390	179,046	24,384	1,690	48,910			
1966	Mar.	7.59	Y	Y	239,778	103,749			25,382	50,394	27,973				
1967	Mar.	7.92	Y	Y	339,613	247,512			29,086	38,271	71,351	108,804			
1968	Mar.	7.71	Y	Y	243,411	109,726				55,522	54,204				
1969	Feb.	8.8	Y	Y	519,881	392,946			78,634	194,398	108,139	11,775		Irrig start 4/28	
1970	Jan.	10.37	Y	Y	493,963	366,576			130,451	185,274	50,851				
1971	Mar.	7.84	Y	Y	293,424	145,871		20,155	87,243	3,616	21,987	12,870		Flood releases 4/1-3	
1972	Apr.	4.58			61,778	0									
1973	Feb.	7.74	Y	Y	391,449	252,897			48,838	119,414	84,645				
1974	Apr.	9.1	Y	Y	625,652	490,221		39,272	149,572	44,196	139,087	118,094			
1975	Mar.	8.9	Y	Y	311,016	166,184					114,704	51,480		Flood Releases 4/1-9	
1976	Apr.	2.32			3,056	0									

MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION PROJECT  
WATER AVAILABILITY ANALYSIS

May 1, 2008

							Flood Releases (allow 200 AF/mo for normal release)								
Water Year	Month	High Lake Level	Pre-1914 Water Rights Met	Project Storage Available, Full (F), Partial (P), None ( )	Total Annual Releases, AF	Total Winter Releases as required by Gopcevic, AF	Nov	Dec	Jan	Feb	Mar	Apr	May	Comments	
1977	Feb.	-0.3			510	0									
1978	Mar.	8.1	Y	Y	338,020	206,010				64,842	90,439	50,729		Flood releases 4/6-20	
1979	May	6.62			114,242	0									
1980	Feb.	9.61	Y	Y	400,507	306,995			71,410	100,304	135,281				
1981	Apr.	6.79			121,264	0									
1982	Apr.	9.17	Y	Y	573,671	451,346		29,550	121,125	61,123	46,122	193,426			
1983	Mar.	11.32	Y	Y	971,564	880,555		42,699	83,118	193,744	302,240	209,314	49,440	Flood releases 5/1-9	
1984	Mar.	7.93	Y	Y	496,115	362,638	40,423	158,696	129,281		17,965	16,273		Flood releases 3/12-4/15	
1985	Apr.	6.25			79,419	0									
1986	Feb.	11.34	Y	Y	526,541	389,038				117,548	249,281	22,209		Flood releases 4/1-4	
1987	Apr.	4.86			41,918	0									
1988	Feb.	5.94			75,208	0									
1989	May	5.27			50,533	0									
1990	Mar.	3.39			488	0									
1991	Apr.	3.98			18,823	0									
1992	Apr.	4.54			37,241	0									
1993	Feb.	8.48	Y	Y	368,065	226,169			54,094	97,240	61,982	12,853			
1994	Mar.	4.41			38,008	0									
1995	Mar.	10.72	Y	Y	700,293	591,314			138,700	104,400	197,900	133,016	17,298	Flood releases 5/1-4	
1996	Mar.	8.05	Y	Y	476,732	337,560		13,190	46,680	137,400	106,000	34,290			
1997	Jan	8.5	Y	Y	481,800	345,750		15,510	187,200	137,900	5,140				
1998	Feb	11.4	Y	Y	818,807	616,971			63,790	276,800	246,200	30,181		Flood releases 4/1-5	
1999	Mar	7.79	Y	Y	357,712	191,590				56,570	102,200	32,820			
2000	Apr	7.69	Y	Y	229,473	64,100				5,520	50,620	7,960			
2001	Mar	5.2			57,411	0									
2002	Apr	6.89		P	157,101	34,710			34,710						
2003	May	7.86	Y	Y	343,884	220,680		3,270	87,860		21,180	71,440	36,930	Flood releases 12/30 - 5/7	
2004	Feb	8.85	Y	Y	386,133	236,365		2,000	45,590	100,200	83,120	5,455		Flood releases 4/1-10	
2005	May	7.85	Y	Y	189,679	62,940					34,310	28,630		Normal release at 800 AF/mo	
2006	Apr	8.77	Y	Y	713,687	579,980		18,680	160,100	25,800	187,800	187,600		Normal release at 400 AF/mo	
2007	Mar	6.14			91,003	0									

Average 277,587 171,361

MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION PROJECT  
WATER AVAILABILITY ANALYSIS

May 1, 2008

						Flood Releases (allow 200 AF/mo for normal release)									
Water Year	Month	High Lake Level	Pre-1914 Water Rights Met	Project Storage Available, Full (F), Partial (P), None ( )	Total Annual Releases, AF	Total Winter Releases as required by Gopcevic, AF	Nov	Dec	Jan	Feb	Mar	Apr	May	Comments	

**Conclusion:**  
The availability of Project Storage is based on flows in excess of those needed to meet the Pre -1914 Water Rights of Yolo County Flood Controland Water Conservation District. This is primarily flood releases after March 15 when Clear Lake is above 7.56 feet Rumsey. In some years, flood releases are required prior to March 15, and Clear Lake does not fill to 7.56 feet Rumsey after March 15. In these years, storage in the Project is accomplished, however, the full storage capability of the Project has not been met. In these years, the maximum storage under the water right of YCFCWCD has not been met, but will not be affected by the Project.  
Between 1945 and 2007, water would be available for storage in the Middle Creek Flood Damage Reduction and Ecosystem Restoration Project (Project) (approximately 5,500 acre-feet) in 38 of the 67 years (4 years of which only partial Project storage would be available). For the period 1979 - 2007 (present operating criteria), water is available for storage in 17 of the 29 years. (2 years of which only partial Project storage would be available).  
The average excess flood flows in the Clear Lake watershed are 171,361 acre-feet per year

**Assumptions:**  
Limited releases occur at the Cache Creek Dam due to gate leakage and is supported by CDFG to support in-stream and riparian habitat. For a majority of the analysis, this was assumed to equal 200 acre-feet per month, or 6.67 acre-feet per day. Due to higher winter releases recently, the normal release was increased.  
  
As detailed operational records for the entire irrigation system were not available, the flood releases for March, April and May may be overestimated, however, as the data is reviewed, flood releases in the spring occur in years when a significant excess in flows have already been released. Therefore, this inherent error does not affect the availability of water for the Project.

**Sources:**  
Lake Level and flow data was obtained from USGS records for Clear Lake at Lakeport (11450000) and Cache Creek near Lower Lake (11451000).



# **MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION PROJECT WATER RIGHT APPLICATION ATTACHMENT 4 WATER AVAILABILITY/ALTERNATIVE SOURCES**

The Lake County Watershed Protection District (District) will place available water for use with municipal water districts/companies that current draw their water supply from Clear Lake. As shown in the Water Availability Analysis, water will not be available for storage in the Project area every year. Based on this analysis, additional water would be stored in the Project in excess of fifty percent of the time and available for beneficial use.

Clear Lake and its watershed have been determined to be fully appropriated by the State, except for flood waters. The full appropriation is held by Yolo County Flood Control and Water Conservation District (YCFCWCD) with their pre-1914 water right. These water districts/companies currently have contracts with YCFCWCD to purchase water for non-littoral uses (most of the districts/companies serve property owners with littoral rights). This water right application is for additional water to provide to the Lake County water districts/companies in years that the rights of YCFCWCD are fully met.

The revised Clear Lake operation is proposed as follows:

- Winter Operation (November through March): No changes are proposed. As the overall storage of the lake will be increased, additional water will be stored in Clear Lake before the lake stage reaches the Operation Schedule. This will delay the onset of required flood releases by approximately one day.
- Summer Operation (April through October): To ensure the water rights of YCFCWCD are not infringed, modification of the Solano Decree is required<sup>8</sup> to reflect the increased storage available in Clear Lake from the Project. For instance, the allowable Seasonal Withdrawal would be zero when the adjusted May 1 stage is 3.17 feet Rumsey and 150,000 acre-feet would be available if the adjusted May 1 stage is 7.40 feet Rumsey. The No-Withdrawal and Stage Limitation Curves would be adjusted accordingly to reflect the increased storage. Similarly, storage at 7.56 feet Rumsey is currently 313,860 acre-feet which corresponds to 7.41 feet Rumsey with the increased Project storage. Water would be available for storage in the Project if the Clear Lake stage exceeds 7.41 feet Rumsey and below 7.56 feet Rumsey, for a maximum of 5,568 acre-feet.

We will provide four examples of how the water right allocations will be distributed:

## Example 1: Current Conditions, No Project

- Water is stored in Clear Lake during the winter, and water is available to YCFCWCD as determined by criteria in the Solano Decree.
- Each water district/company purchases water for their system from YCFCWCD in accordance with their individual agreements.

## Example 2: Clear Lake fills to a level below 7.56 feet Rumsey, with Project

- Water is stored in Clear Lake during the winter, and water is available to YCFCWCD as determined by criteria in the Solano Decree.
- The District has no water rights under the this application
- Each water district/company purchases water for their system from YCFCWCD in accordance with their individual agreements.
- Result: YCFCWCD's water allocation is unchanged from the No Project conditions.

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<sup>8</sup> Negotiations on the specifics of the modifications to the Solano Decree are currently being negotiated by the District and YCFCWCD.

Example 3: Clear Lake fills to a level between 7.41 feet Rumsey and 7.56 feet Rumsey after March 15, with Project

- The water rights of YCFCWCD are fully met.
- A portion of the District's water rights are met. Only the water stored above 7.41 feet Rumsey is available for the District's use.
- The District will provide its available water to the water districts/companies under separate agreement with the districts/companies.
- In the event that the District's water rights are fully utilized, each water district/company purchases additional water for their system from YCFCWCD in accordance with their individual agreements.
- Result: YCFCWCD's water allocation is unchanged from the No Project conditions, additional water is stored within the watershed for beneficial use.

Example 4: Clear Lake fills at or above 7.56 feet Rumsey after March 15, with Project

- The water rights of YCFCWCD are fully met.
- The District's water rights are fully met.
- The District will provide its available water to the water districts/companies under separate agreement with the districts/companies.
- In the event that the District's water rights are fully utilized, each water district/company purchases additional water for their system from YCFCWCD in accordance with their individual agreements.
- Result: YCFCWCD's water allocation is unchanged from the No Project conditions, additional water is stored within the watershed for beneficial use.

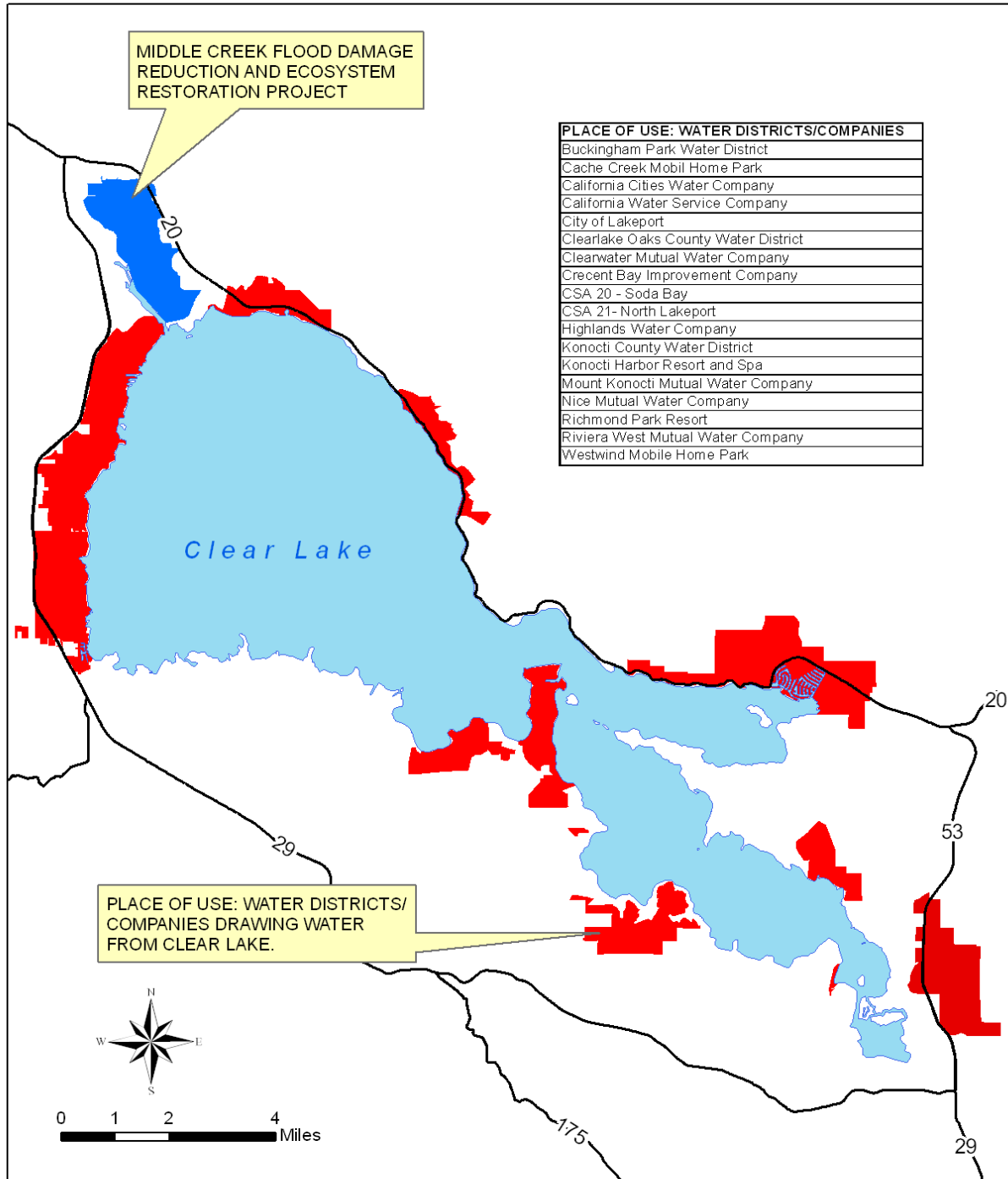
**MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM  
RESTORATION PROJECT  
WATER RIGHT APPLICATION  
ATTACHMENT 5  
PLACE OF USE**

Additional water stored within the Middle Creek Flood Damage Reduction and Ecosystem Restoration Project (Project) will be utilized by Lake County water districts/companies that currently utilize Clear Lake as their raw water supply. The Lake County Watershed Protection District (District) does not have a commitment from any of the local water districts/companies to purchase water. Potential local water districts/companies are listed below:

Buckingham Park Water District
Cache Creek Mobil Home Park
California Cities Water Company
California Water Service Company
City of Lakeport
Clearlake Oaks County Water District
Clearwater Mutual Water Company
Crecent Bay Improvement Company
CSA 20 – Soda Bay
CSA 21- North Lakeport
Highlands Water Company
Konocti County Water District
Konocti Harbor Resort and Spa
Mount Konocti Mutual Water Company
Nice Mutual Water Company
Richmond Park Resort
Riviera West Mutual Water Company
Westwind Mobile Home Park

The following map shows the locations of each of these districts/companies.

# MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION PROJECT PLACE OF USE



**MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM  
RESTORATION PROJECT  
WATER RIGHT APPLICATION  
ATTACHMENT 6  
JUSTIFICATION OF AMOUNTS REQUESTED  
MUNICIPAL**

In 2005-2006, the Lake County Watershed Protection District had the Lake County Water Demand Forecast<sup>9</sup> (Forecast) prepared, copy enclosed on CD. The Forecast estimates the urban water demand throughout the County and includes a subset of urban water demand for the population adjacent to Clear Lake that obtain the water from Clear Lake.

The Forecast estimated water demands in Lake County utilizing procedures similar to those utilized for the California Water Plan. Water demand was estimated for the numerous community areas around the lake utilizing data submitted by the water utilities to the California Department of Water Resources (DWR). These figures were utilized to estimate water demand from Clear Lake in 2000 (average year) and 2001 (dry year) at 6,594 and 7,212 acre-feet per year, respectively. Future demands were estimated utilizing the population projections in the Lake County General Plan Update (in progress) to estimate water demand in 2040. The urban water demand from Clear Lake was estimated to be 11,544 and 12,300 acre-feet per year for average and dry years, respectively.

As the current and projected urban water demand from Clear Lake exceeds the available capacity of the Project, the additional storage will only partially serve the urban water demand in Lake County. The additional storage approximates the increased demand until 2040. Urban water demand not met by the additional storage will continue to be met by purchasing water from the Yolo County Flood Control and Water Conservation District.

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<sup>9</sup> Camp, Dresser and McKee, Lake County Water Demand Forecast, March 2006



**MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM  
RESTORATION PROJECT  
WATER RIGHT APPLICATION  
ATTACHMENT 7  
DIVERSION AND DISTRIBUTION METHOD**

The Middle Creek Flood Damage Reduction and Ecosystem Restoration Project (Project) restores a historical bay on Clear Lake by removing portions of levees originally constructed between 1900 and 1933, reconnecting the Project area to Clear Lake. Therefore, the water level and storage in the Project area will change in direct connection to Clear Lake. No diversion facilities will be constructed.

Water use will be by water districts/companies that pump their raw water directly from Clear Lake. As storage in the Project area is directly connected to Clear Lake, the existing raw water intakes are connected to Project storage through Clear Lake, therefore, Clear Lake functions as the distribution system for the Project. No distribution facilities will be constructed.

**MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM  
RESTORATION PROJECT  
WATER RIGHT APPLICATION  
ATTACHMENT 8  
RIGHT OF ACCESS**

The Lake County Watershed Protection District (District) does not own all the land where the water will be stored. The District is in the process of purchasing the property and have taken the following actions:

1. Notified all potentially affected property owners of the Middle Creek Flood Damage Reduction and Ecosystem Restoration Project (Project) and its potential impact on their property. Note that the Project impacts extend to the 100-year floodplain elevation of 1331 feet NGVD, while the storage component included in this application extends to the normal full lake elevation of 1325.74 feet NGVD (7.56 feet Rumsey).
2. Affected property owners and the public have been invited to public meetings and hearings regarding the Project from the beginning (1995).
3. In cooperation with the U.S. Army Corps of Engineers, Sacramento District (USACE), the California Department of Water Resources (DWR), the State Reclamation Board (now called the Central Valley Flood Protection District), and the District, an Integrated Feasibility Study/Environmental Impact Statement/Environmental Impact Report was prepared, circulated for public review and adopted, see Attachment 12.
4. The District has been working with the Robinson Rancheria Band of Pomo Indians (Robinson) and the Bureau of Indian Affairs (BIA) to transfer the "USA In Trust" status from the two parcels within the Project boundary to other parcels held by the USA for Robinson. To date, these efforts have been unsuccessful, however, the District and Robinson continue to lobby our federal legislators to transfer the Trust status to parcels outside the Project boundaries.
5. The District and Robinson have been lobbying federal legislators since 2002 to obtain Federal authorization for the Project. In November 2007, the House and Senate authorized the Project by overriding the President's veto of the Water Resources Development Act of 2007.
6. The District obtained funding in the amount of \$5.714 million from the DWR administered Flood Protection Corridor Program (FPCP) to begin the acquisition process, targeting residential structures. To date the District has purchased seven properties and demolished the homes, accessory structures, septic systems and water wells. With the remaining funds, two, and possibly three, homes will be acquired. The additional acquisitions should begin in 2008. Rights-of-entry have been obtained from multiple properties in the Project area.
7. The District has pursued additional funding for property acquisition from the California Wildlife Conservation Board/Department of Fish and Game and from DWR. To date, additional funds have not been encumbered, however, discussions with these and other agencies/ organizations are ongoing.

The following table lists all properties that underlie, either fully or partially, the portion of the Project which provides storage.

PARCEL	PARCEL ADDRESS	OWNER	INCAREOF	MAILADDR	MAILCITY	MAILST	MAILZIP
004-014-06	8223 RECLAMATION RD, UL	BOBST GLEN L & BEVERLY		2412 FOOTHILL BLVD #127	CALISTOGA	CA	94515
004-021-18	7945 RECLAMATION RD, UL	BOBST GLEN L & BEVERLY		2412 FOOTHILL BLVD #127	CALISTOGA	CA	945151241
004-022-02	7527 RECLAMATION RD, UL	BOBST GLEN L & BEVERLY		2412 FOOTHILL BLVD #127	CALISTOGA	CA	945151241
004-022-01	7525 RECLAMATION RD, UL	BOBST GLEN L & BEVERLY		2412 FOOTHILL BLVD #127	CALISTOGA	CA	945151241
004-021-19	7575 RECLAMATION RD, UL	BOBST GLEN L & BEVERLY		2412 FOOTHILL BLVD #127	CALISTOGA	CA	945151241
004-019-22	8055 RECLAMATION RD, UL	BOBST GLEN L & BEVERLY		2412 FOOTHILL BLVD #127	CALISTOGA	CA	94515
004-019-21	8053 RECLAMATION RD, UL	BOBST GLEN L & BEVERLY		2412 FOOTHILL BLVD #127	CALISTOGA	CA	94515
004-019-20	8051 RECLAMATION RD, UL	BOBST GLEN L & BEVERLY		2412 FOOTHILL BLVD #127	CALISTOGA	CA	94515
004-020-12	7415 RECLAMATION RD, UL	BOBST GLEN L & BEVERLY		2412 FOOTHILL BLVD #127	CALISTOGA	CA	945151241
004-015-22	1050 E STATE HWY 20, UL	CHEVALIER CHARLES A		1050 E STATE HWY 20	UPPER LAKE	CA	95485
004-014-20	8465 RECLAMATION RD, UL	CHRISTIANSON AL		P O BOX 1386	UPPER LAKE	CA	95485
004-016-33	8220 SAILOR AVE, UL	CHRISTIANSON, III VERNON M & WHEELER LORETTA F		680 - 5TH STREET	LAKEPORT	CA	95453
004-015-02	1055 E STATE HWY 20, UL	DIPLOUDIS SIMEON & VIRGINIA S		P O BOX 1444	LUCERNE	CA	95458
004-016-05	8475 RECLAMATION RD, UL	EDMANDS RECLAIMED LAND CO	SYLVIA MCCARTHY SECRETARY	1350 RECLAMATION CUTOFF	UPPER LAKE	CA	95485
004-014-05	8221 RECLAMATION RD, UL	EDMANDS RECLAMATION DIST	SYLVIA MCCARTHY SECRETARY	1350 RECLAMATION CUTOFF	UPPER LAKE	CA	95485
004-014-04	8345 RECLAMATION RD, UL	EDMANDS RECLAMATION DIST	SYLVIA MCCARTHY SECRETARY	1350 RECLAMATION CUTOFF	UPPER LAKE	CA	95485
004-019-02	8035 RECLAMATION RD, UL	EDMANDS RECLAMATION DIST	SYLVIA MCCARTHY SECRETARY	1350 RECLAMATION CUTOFF	UPPER LAKE	CA	95485
004-016-35	8120 SAILOR AVE, UL	EMBRY RUTH E TRUSTEE		35009 DONEGAL CT	NEWARK	CA	94560
004-014-19	8250 RECLAMATION RD, UL	FLOYD BRAD L & MARY LOU TRUSTEE		104 BROOKSIDE DR	ANTIOCH REDWOOD CITY	CA	94509
004-021-25	7950 RECLAMATION RD, UL	HANSTEN ROBERT E & DOROTHY G		142 DUGGAN RD		CA	94062
004-015-27	8915 UPPER LAKE-LUCERNE RD, UL	HUDDLESTON CHRIS		8915 UPPERLAKE/LUCERNE RD	UPPER LAKE	CA	95485
201-030-01	8865 UPPER LAKE-LUCERNE RD, UL	IRWIN JENNIFER		8865 UPPER LAKE LUCERNE RD	UPPER LAKE	CA	95485
004-016-32	8300 RECLAMATION RD, UL	IRWIN JOHN JR		8340 RECLAMATION RD	UPPER LAKE	CA	95485
004-014-13	8325 RECLAMATION RD, UL	IRWIN WILLIAM S & PAMELA G TRUSTEE		P O BOX 865	LAKEPORT	CA	95453
004-013-19	8335 RECLAMATION RD, UL	IRWIN WILLIAM S & PAMELA G TRUSTEE		P O BOX 865	LAKEPORT	CA	95453
004-016-31	8340 RECLAMATION RD, UL	IRWIN, JR JOHN D		8340 RECLAMATION RD	UPPER LAKE	CA	95485
004-013-05	877 E STATE HWY 20, UL	KAHN LAWRENCE		825 E STATE HWY 20	UPPER LAKE	CA	95485
004-022-34	1675 E STATE HWY 20, UL	KELSO BROOKMAN MARTHA J		1845 E HWY 20	UPPER LAKE	CA	95485
004-013-11	8217 RECLAMATION RD, UL	KOKER THOMAS B & DONNA M		8417 RECLAMATION RD	UPPER LAKE	CA	95485
004-021-21	1280 RECLAMATION CUTOFF, UL	LAKE CO WATERSHED PROTECTION DIST		255 N FORBES ST	LAKEPORT	CA	95453
004-014-15	8155 RECLAMATION RD, UL	LAKE COUNTY MOSQUITO ABATEMENT DIST		P O BOX 310	LAKEPORT	CA	95453
004-022-03	7450 RECLAMATION RD, UL	LAKE COUNTY WATERSHED PROTECTION DIST	C/O BOARD OF DIRECTORS	255 N FORBES ST	LAKEPORT	CA	95453
004-021-31	1405 RECLAMATION CUTOFF, UL	LAKE COUNTY WATERSHED PROTECTION DIST	C/O BOARD OF DIRECTORS	255 N FORBES ST	LAKEPORT	CA	95453
004-021-22	1320 RECLAMATION CUTOFF, UL	LAKE COUNTY WATERSHED PROTECTION DIST	C/O BOARD OF DIRECTORS	255 N FORBES ST	LAKEPORT	CA	95453
004-022-24	7385 RECLAMATION RD, UL	LAKE COUNTY WATERSHED PROTECTION DISTRICT		255 N FORBES STREET	LAKEPORT	CA	95453
004-021-20	1350 RECLAMATION CUTOFF, UL	LAKE COUNTY WATERSHED PROTECTION DISTRICT	C/O BOARD OF DIRECTORS	255 N FORBES STREET	LAKEPORT	CA	95453
004-021-28	1370 RECLAMATION CUTOFF, UL	LAKE COUNTY WATERSHED PROTECTION DISTRICT	C/O BOARD OF DIRECTORS	COURT HOUSE 255 N FORBES STREET	LAKEPORT	CA	95453
201-030-04	1100 E STATE HWY 20, UL	LIPSCOMB ELIZABETH F		P O BOX 92	UPPER LAKE	CA	95485
201-030-05	8825 UPPER LAKE-LUCERNE RD, UL	LOVINGOOD LYNDA L		P O BOX 178	UPPER LAKE	CA	95485
004-013-17	557 E STATE HWY 20, UL	LUNA GAMING-UPPER LAKE		42875 GRAND RIVER AVE STE #201	NOVI	MI	48375

004-016-11	1347 E STATE HWY 20, UL	MARTELL FLORA MAE		2856 CORNELIUS DR	SAN PABLO	CA	94806
004-021-29	7600 RECLAMATION RD, UL	MCCARTHY EDWARD T		P O BOX 150417	SAN RAFAEL	CA	949150417
004-021-30	1305 RECLAMATION CUTOFF, UL	MEUNOT DAVID		1305 RECLAMATION CUT OFF ROAD	UPPER LAKE	CA	95485
004-021-24	7998 RECLAMATION RD, UL	MORRILL KEVIN R & ESTHER M		P O BOX 101	NICE	CA	95464
031-041-32	1830 NICE-LUCERNE CUTOFF, NICE	MOUNTANOS MICHAEL S TRUSTEE		176 LOS ROBLES	BURLINGAME	CA	94010
031-031-09	2200 POINT LAND FARMS DR, NICE	MOUNTANOS MICHAEL S TRUSTEE		176 LOS ROBLES	BURLINGAME	CA	94010
004-021-27	7500 RECLAMATION RD, UL	MURDERS LEON & CHERI		2935 ELSIE WAY	UKIAH	CA	95482
201-010-02	1757 E STATE HWY 20, UL	NICHOLSON LEWIS F & ANNE		1757 E HWY 20	UPPER LAKE	CA	95485
004-013-18	737 E STATE HWY 20, UL	OLD RIVER VINTNERS		2052 FULTON AVE	SACRAMENTO REDWOOD VALLEY	CA	95825
004-013-15	735 E STATE HWY 20, UL	OLDHAM MELVYN W II		2195 GOWAN WAY		CA	954709557
004-016-03	8100 SAILOR AVE, UL	ORTEGA FRANCISCO & ANGELA		32 CREEKSIDE COURT	UKIAH	CA	95482
004-013-06	879 E STATE HWY 20, UL	OSBORNE JANELLE		1400 INK GRADE	POPE VALLEY	CA	94569
004-013-12	881 E STATE HWY 20, UL	OSBORNE JANELLE		1400 INK GRADE	POPE VALLEY	CA	94569
004-016-23	1425 E STATE HWY 20, UL	PARKINSON BARRY		25 WORLEY DR	LAKEPORT	CA	95453
004-015-13	1235 E STATE HWY 20, UL	PIERSON MICKEY E & JOYCE M		3255 CALIFORNIA ST	NICE	CA	95464
201-010-05	1769 E STATE HWY 20, UL	RECK ROBERT A & JUDITH A TRUSTEE		1885 E HWY 20	UPPER LAKE	CA	95485
004-020-10	7425 WESTLAKE RD, UL	RECLAMATION DIST 2070			UNKNOWN	CA	00000
004-022-07	7035 RECLAMATION RD, UL	RECLAMATION DIST 2070			UNKNOWN WITTER SPRINGS	CA	00000
004-016-18	8490 RECLAMATION RD, UL	ROBINSON MATILDA J TRUSTEE		3550 WITTER SPRINGS RD		CA	95493
004-022-08	1745 E STATE HWY 20, UL	ROBINSON RANCHERIA		P O BOX 428	NICE	CA	95464
004-021-15	1555 RECLAMATION CUTOFF, UL	ROBINSON RANCHERIA		P O BOX 428	NICE	CA	95464
004-016-20	8050 SAILOR AVE, UL	ROONEY PHILIP M & MARCIA D		8050 RECLAMATION RD	UPPER LAKE	CA	95485
004-014-12	8001 RECLAMATION RD, UL	SACRAMENTO & SAN JOAQUIN DRAINAGE DIST	PETER D RABON, P E	1416 NINTH STREET	SACRAMENTO	CA	95814
004-019-19	8043 RECLAMATION RD, UL	SACRAMENTO & SAN JOAQUIN DRAINAGE DIST	PETER D RABON, P E	1416 NINTH STREET	SACRAMENTO	CA	95814
004-014-14	8027 RECLAMATION RD, UL	SACRAMENTO & SAN JOAQUIN DRAINAGE DIST	PETER D RABON, P E	1416 NINTH STREET	SACRAMENTO	CA	95814
004-013-08	937 E STATE HWY 20, UL	SAECHAO OUYERN & MEUYTHAO		935 E HWY 20	UPPER LAKE	CA	95485
004-014-17	8190 RECLAMATION RD, UL	SANTOS JOE D TRUSTEE		P O BOX 224	UPPER LAKE	CA	95485
004-013-09	941 E STATE HWY 20, UL	SENTI LINDA IRENE		9176 UPPER LAKE LUCERNE RD	UPPER LAKE	CA	95485
004-025-01	1430 NICE-LUCERNE CUTOFF, NICE	SINO-AMERICAN BUDDHIST ASSOC	C/O GOLD MOUNTAIN MONASTERY	800 SACRAMENTO ST	SAN FRANCISCO	CA	94108
004-016-34	8230 SAILOR AVE, UL	STERLING ROBERT W & KELLY A		8230 SAILOR AVE	UPPER LAKE	CA	95485
004-015-26	8925 UPPER LAKE-LUCERNE RD, UL	THOMAS CHERYL & W SCOTT		8935 UPPER LAKE LUCERNE RD	UPPER LAKE	CA	95485
004-016-02	8240 EZRA AVE, UL	TORRENCE NANCY		P O BOX 541	UPPER LAKE	CA	95485
004-021-40	1545 E STATE HWY 20, UL	U S A - IN TRUST	C/O ROBINSON RANCHERIA OF POMO INDIANS OF C	P O BOX 428	NICE	CA	95464
004-016-14	1495 E STATE HWY 20, UL	U S A - IN TRUST	C/O ROBINSON RANCHERIA OF POMO INDIANS OF C	P O BOX 428	NICE	CA	95464
004-016-43	1494 E STATE HWY 20, UL	U S A - IN TRUST	C/O ROBINSON RANCHERIA OF POMO INDIANS OF C	P O BOX 428	NICE	CA	95464
004-021-34	1570 E STATE HWY 20, UL	U S A - IN TRUST	C/O ROBINSON RANCHERIA OF POMO INDIANS OF C	P O BOX 428	NICE	CA	95464
004-015-12	1175 E STATE HWY 20, UL	VETZMADIAN SHUSHAN B & SHARON GREG A		PO BOX 43	COBB	CA	95426
004-014-11	8219 RECLAMATION RD, UL	WEGER INTERESTS LTD		2742 TREETOPS WAY	SANTA ROSA	CA	95404
004-013-10	8922 BRIDGE ARBOR NORTH, UL	WEGER INTERESTS LTD		2742 TREETOPS WAY	SANTA ROSA	CA	95404
004-022-13	2257 E STATE HWY 20, UL	WILCOX DONALD T & DOLORES J		2255 E HWY 20	UPPER LAKE	CA	95485

004-022-12	2255 E STATE HWY 20, UL	WILCOX DONALD T & DOLORES J	1905 E HWY 20	UPPER LAKE	CA	95485
004-016-13	1485 E STATE HWY 20, UL	WILLS THOMAS E	1485 E HWY 20	UPPER LAKE	CA	95485

**MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM  
RESTORATION PROJECT  
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EXISTING WATER RIGHTS AND RELATED FILINGS**

The Clear Lake watershed is fully appropriated, with the pre-1914 water right for normal flows held by the Yolo County Flood Control and Water Conservation District (YCFCWCD). Water rights for storage of flood flows (water in excess of that needed to fill Clear Lake to a full level of 7.56 feet Rumsey, or flood releases are required by the Gopcevic Decree<sup>10</sup>), junior to YCFCWCD's water right have been allowed. The Lake County Watershed Protection District (District) recognizes these limitations and is working with YCFCWCD to develop a revised set of operating criteria to allow YCFCWCD water right to be fully satisfied prior to recognition of additional storage in the Middle Creek Flood Damage Reduction and Ecosystem Restoration Project (Project) area. This will require revision of the Solano Decree<sup>11</sup>. The District is currently negotiating with YCFCWCD to revise the operating criteria in the Solano Decree.

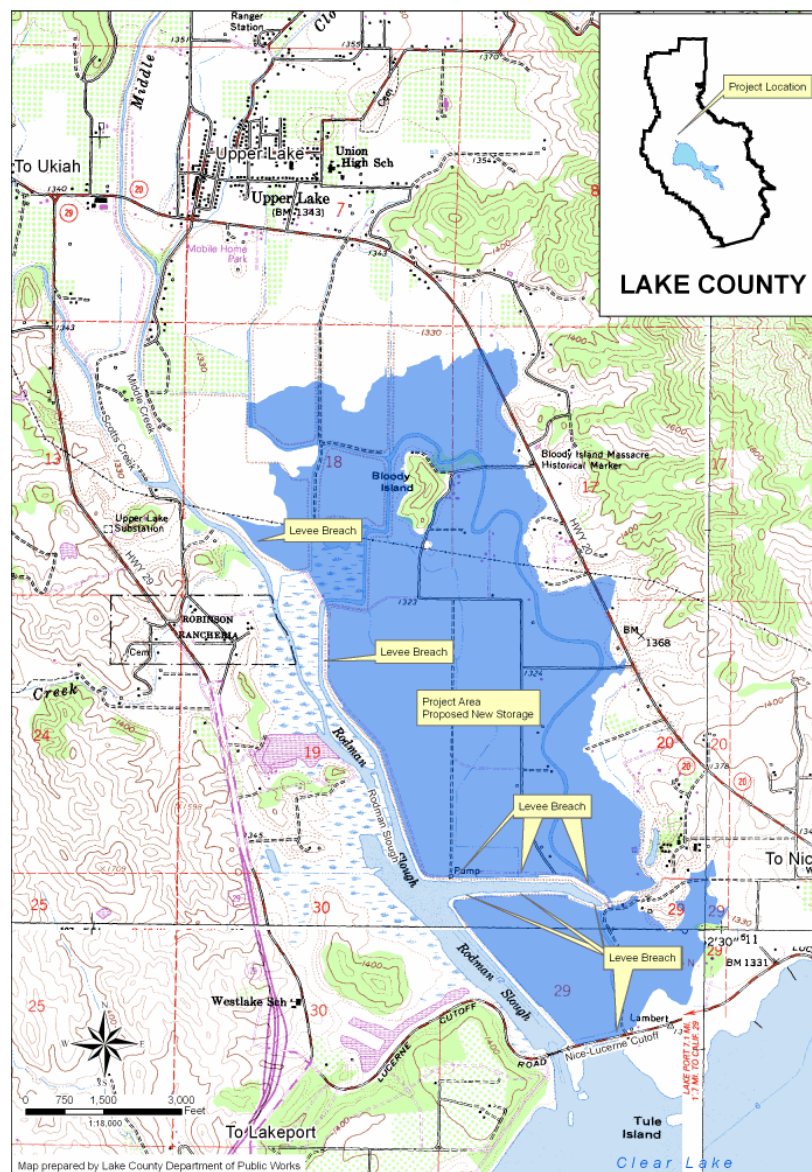
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<sup>10</sup> Superior Court of the State of California, in and for the County of Mendocino, M. M. Gopcevic, and The Hotaling Estate Co., a corporation, and George T. Ruddick vs. Yolo Water and Power Company, a corporation, and Yolo Water and Power Corporation, October 7, 1920

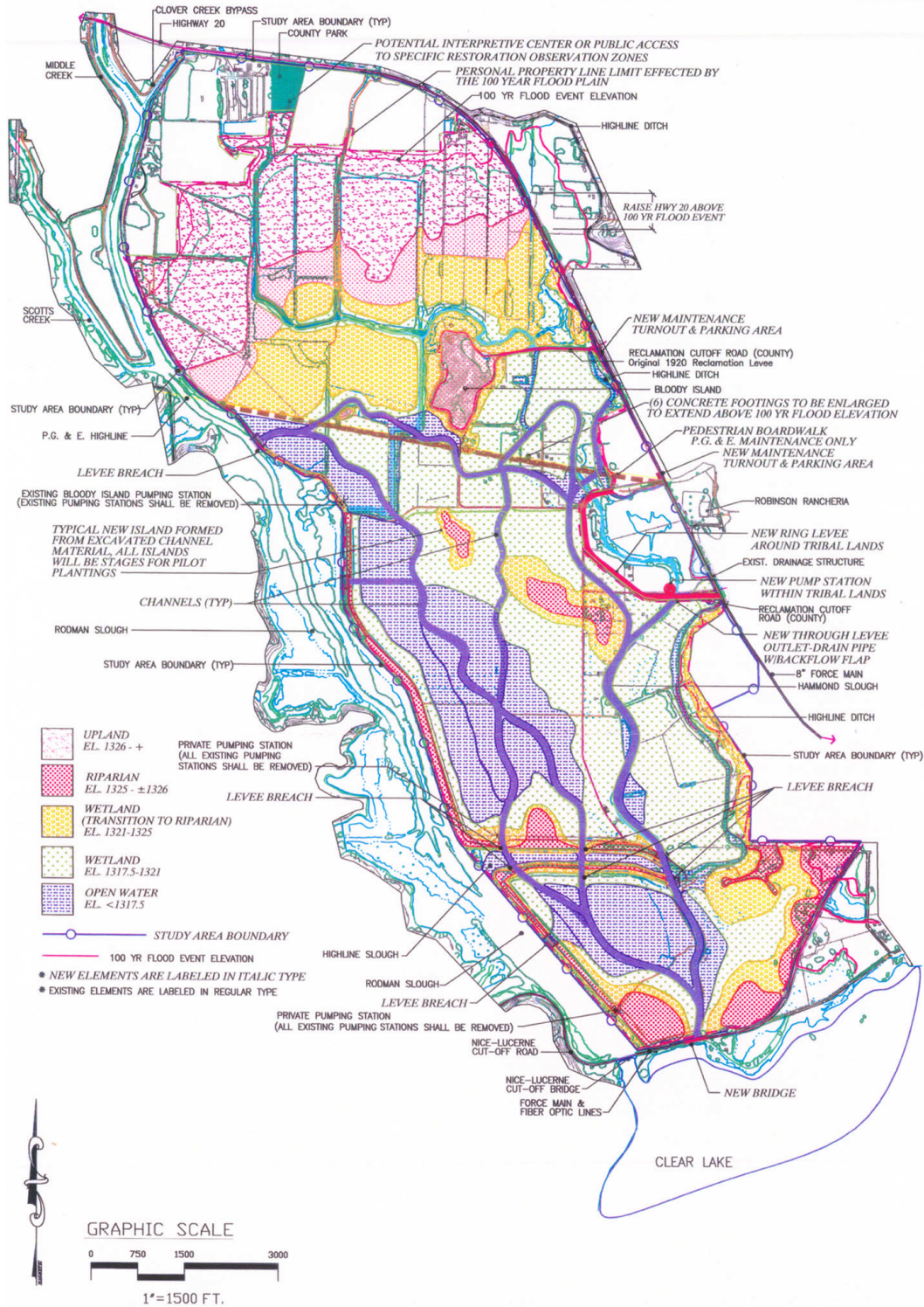
<sup>11</sup> In the Superior Court of the State of California, in and for the County of Solano, The County of Lake vs. Yolo County Flood Control and Water Conservation District, March 30, 1995

# MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION PROJECT WATER RIGHT APPLICATION ATTACHMENT 10 MAP REQUIREMENTS

Following is a depiction of the project footprint on the USGS 7.5 Minute quadrangle maps. On the following page is the Project map from the Feasibility Report. Engineered design maps for the Project site have not been prepared at this time. The Planning, Engineering and Design (PED) phase of the Project, including preparation of details plans and specifications, is just beginning in cooperation with the U.S. Army Corps of Engineers. The Project restores a portion of the original shoreline and storage volume to Clear Lake. No engineered facilities will be required to contain the water within the Project area.







US Army Corps  
of Engineers  
Sacramento District

MIDDLE CREEK, LAKE COUNTY, CALIFORNIA  
FLOOD DAMAGE REDUCTION AND ECOSYSTEM RESTORATION  
**Restore Entire Robinson Lake Flood Plain**  
**ALTERNATIVE 2**

PLATE 3



**MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM  
RESTORATION PROJECT  
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ATTACHMENT 11  
COUNTY PERMITS**

The Lake County Watershed Protection District (District) is an independent district under the direction of the Lake County Board of Supervisors (the Board of Supervisors sit as the District Board of Directors). County Counsel has determined that the County is not required to obtain permits as required by the County Code, however, the appropriate department or district shall follow the functionally equivalent process prior to proceeding with a project. Environmental review and General Plan conformity issues have already been addressed. The Project will require the functional equivalent of a Grading Permit. Chapter 30 of the Lake County Code established regulations for grading operations, including environmental and water quality protection, air quality protection and compliance with the County Stormwater Ordinance (Chapter 29 of the County Code).

**MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM  
RESTORATION PROJECT  
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STATE/FEDERAL PERMITS AND REQUIREMENTS**

Following is an excerpt (pp 7-9 to 7-14) from the Integrated Feasibility Report/Environmental Impact Statement/ Environmental Impact Report which discusses compliance with State and Federal Laws.

**7.9 COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS**

The relationship of the project alternatives to applicable Federal and State environmental requirements is summarized below. Prior to initiation of construction, the project would be in compliance with all laws, regulations, and Executive Orders.

**7.8.1 Federal Laws, Regulations, and Policies**

**National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.)**

*Partial Compliance.* Section 106 of the National Historic Preservation Act requires the head of any Federal agency to take into account the effects of an Federal undertaking on properties that have been determined to be eligible for, or included in, the National Register of Historic Places and give the Advisory Council on Historic Preservation an opportunity to comment on the undertaking. Given these requirements, the APE of the selected alternative will be inventoried and evaluated to identify historical or archeological properties that have been placed on the National Register and those that the agency and the SHPO concur are eligible for inclusion in the National Register. If the alternative is determined to have an unavoidable effect on such properties, the agency must consult with the SHPO and the Council to develop mitigation measures. In this case, a MOA will need to be executed.

The project is not in compliance with Section 106 at this time. A preliminary letter dated June 20, 2001, was received from the SHPO concurring with the Corps' determination of an APE and the proposed level of effort toward identifying historic properties. Prior to the initiation of construction, an updated records check and thorough field surveys will be conducted. If additional cultural resources are identified during the field surveys, evaluations and determinations of effect will be made in accordance with Section 106 and its implementing regulations 36 CFR 800.

**Clean Air Act (42 U.S.C. 1857 et seq. (1990), as amended and recodified, 42 U.S.C. 7401 et seq. (SUPP II 1978))**

*Full Compliance.* Section 5.7 of this FR/EIS/EIR discusses the effects of each of the alternatives on local and regional air quality. The section discusses the issues relative

to the alternative's compliance with the EPA's adopted *de minimus* thresholds in its general conformity rule. Since the alternatives would have no significant adverse effects on air quality, a conformity determination would not be required.

**Clean Water Act, as amended (33 U.S.C. 1251 et seq. (1976 & SUPP II 1978))**

*Partial Compliance.* The potential effects of each alternative on water quality have been evaluated and discussed in Section 5.6. The Corps would comply with the guidelines and substantive requirements of Section 404 of the CWA. Lake County as the non-Federal sponsor would obtain Nationwide Permit 27 for the project. This permit authorizes activities in wetlands and waters of the U.S. associated with the restoration of altered or degraded non-tidal wetlands and creation of wetlands on private lands.

**Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)**

*Partial Compliance.* Section 7 of the Endangered Species Act requires Federal agencies, in consultation with the Secretary of the Interior, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat for these species. A list of threatened and endangered species relating to this project was obtained from FWS. Preliminary coordination with FWS has been initiated. The Corps will submit a biological assessment, asking for their review and concurrence with a determination of not likely to affect any special status species. If the FWS does not concur with this assessment, the Corps will initiate formal consultation and will work with FWS to complete consultation within 135 days. A biological opinion will be provided by FWS and included in the final FR/EIS/EIR. Mitigation for adverse effects on special status species is described in Section 5.5.6.

**Farmland Protection Policy Act (7 U.S.C. 4201 et seq.)**

*Full Compliance.* This act requires a Federal agency to consider the effects of its actions and programs on the Nation's farmland. To comply with the act, the Corps provided the NRCS with descriptions and maps of the alternatives for identification of prime and unique farmland. The NRCS identified the specific numbers of acres of prime and unique farmland for each alternative. According to the Department of Conservation Lake County Important Farmland Map (1998), there is no farmland of statewide importance in the study area; however, there are approximately 40 acres of farmland of local importance. The Corps used the information provided by the NRCS to derive a combined score for each alternative. The Corps then used these scores to assist in evaluating the effects of the three alternatives on these acres and considering ways, if any, to reduce the effects. A detailed discussion is included in Sections 4.2 and 5.2.

**Federal Project Recreation Act (16 U.S.C. 460L-5, 460L-12 et seq., and 662)**

*Full Compliance.* This act requires that in planning any Federal navigation, flood control, or multipurpose project, full consideration be given to the opportunities afforded

by the project for outdoor recreation and fish and wildlife enhancement. One project purpose is restoration of fish and wildlife resources. Improving fish and wildlife habitat in the historic Robinson Lake area could provide additional recreation opportunities. Implementation of Alternative 2 would increase recreational opportunities at Clear Lake. Recreational resources are addressed in section 4.1.5.

**Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661 et seq.)**

*Full Compliance.* This act requires Federal agencies to consult with the FWS and State fish and game agencies before undertaking projects that control or modify surface water (water projects). This consultation is intended to promote the conservation of wildlife resources by preventing loss or damage to fish and wildlife resources and to provide for the development and improvement of fish and wildlife resource in connection with water projects. The FWS is authorized to conduct necessary surveys and investigations to determine the possible damage or benefits to resources and determine measures to prevent any losses. The Corps is consulting with the FWS as directed under this act in order to conserve wildlife resources. The FWS prepared the draft CAR (Appendix C). The CAR addresses the effects of the proposed project. The FWS recommendations are addressed in Section 7.6.1.

**National Environmental Policy Act (42 U.S.C. 4321 et seq.)**

*Partial Compliance.* This act requires full disclosure of the environmental effects, alternatives, potential mitigation, and environmental compliance procedures of the selected project. The final FR/EIS/EIR constitutes partial compliance with NEPA. Full compliance will be achieved when the final FR/EIS/EIR and Record of Decision are filed with the Environmental Protection Agency.

**Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq.), President's Environmental Message of August 1979, and CEQ Memorandum of August 10, 1980, for Heads of Agencies**

*Full Compliance.* There are no rivers designated as Wild and Scenic in the study area; therefore the study is in compliance with this act.

**Executive Order 11988, Flood Plain Management**

*Full Compliance.* The objective of this Executive Order is the avoidance, to the extent possible, of long- and short-term adverse effects associated with the occupancy and modification of the base flood plain (1 in 100 annual event) and the avoidance of direct and indirect support of development in the base flood plain wherever there is a practicable alternative. The proposed project is consistent with the objective of this Executive Order. The proposed project would relocate residences out of the flood plain and restore a natural function to a historic flood plain.

### **Executive Order 11990, Protection of Wetlands**

*Full Compliance.* The objective of this Executive Order is to minimize destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities. The proposed project would restore and preserve wetland in the project area.

### **Executive Order 12989, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations**

*Full Compliance.* This Executive Order states that Federal agencies are responsible to conduct their programs, policies, and activities that substantially affect human health or the environment in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons from participation in, denying persons the benefits of, or subjecting persons to discrimination under such programs, policies, and activities because of their race, color, or national origin.

The project was formulated in full compliance with this Executive Order. The benefits of ecosystem restoration at Middle Creek would extend to all residents of Lake County. Full public participation was encouraged through a public scoping workshop and public outreach.

### **Executive Order 13084, Consultation and Coordination With Indian Tribal Governments, and Executive Memorandum, April 29, 1994, on Government-to-Government Relations with Native American Tribal Governments**

*Full Compliance.* This Executive Order and Memorandum requires that the U.S. ensure that agencies consult and coordinate with Indian tribal governments prior to taking actions that affect Federally recognized tribal governments. These consultations are to be open and candid. Each executive agency is to assess effects of Federal plans on tribal trust resources and ensure that tribal government rights and concerns are considered during the development of these plans.

The project was formulated in full compliance with this Executive Order and Executive Memorandum. The Robinson Rancheria Tribe of Pomo Indians has been consulted throughout the planning process. Each alternative was formulated to avoid effects to Tribal trust resources by excluding the trust lands from the project. The Tribe has been invited to all public meetings, and they hosted an in-progress review of the project at the Robinson Rancheria.

Formal consultation has been initiated with the Tribe and will continue throughout the additional phases of the project.

### **Executive Order 13112, Invasive Species**

*Full Compliance.* The objective of this Executive Order is to prevent the introduction of invasive species and provide for their control and to minimize the

economic, ecological, and human health effects that invasive species cause. The proposed project is consistent with this Executive Order. The project would restore natural habitat by planting native species, ensuring their establishment, monitoring their long-term survival, and managing any invasive species.

### **7.8.2 State Laws, Regulations, and Policies**

This section discusses the relationship of the selected plan to applicable California environmental requirements. Many of the following requirements were obtained via personal communications with agency personnel.

#### **California Environmental Quality Act**

The document will be adopted as a joint FR/EIS/EIR and will fully comply with CEQA. Full compliance will be achieved when all CEQA requirements are satisfied. Currently, the lead agency under CEQA has been identified as the Reclamation Board.

#### **California Endangered Species Act**

The DFG administers the California Endangered Species Act of 1984. This act requires the non-Federal lead agencies to prepare biological assessments if a project may adversely affect one or more State-listed endangered species. The Reclamation Board as the CEQA lead has initiated coordination with the DFG as required under the act. The DFG will issue a biological opinion for the State-listed species affected by the project. All mitigation measures in the biological opinion will be implemented as part of the proposed project.

#### **State Water Resources Control Board, Division of Water Quality, and the Central Valley Regional Water Quality Control Board**

The State WRCB and the RWQCB for the Central Valley review activities that affect water quality. The Boards administer the requirements mandated by State and Federal law (Clean Water Act). The RWQCB establishes water quality standards and review individual projects for compliance with the standards. Any permits or approvals will be acquired from the Central Valley RWQCB before construction activities begin. Appropriate 401 water quality certification and an National Pollution Discharge Elimination System general permit for storm water discharges will be acquired from the Central Valley RWQCB.

#### **State Mining and Geology Board and Department of Conservation**

The State Mining and Geology Board oversees the implementation of pertinent State laws and regulations. One of the laws within its jurisdiction is the Surface Mining and Reclamation Act of 1975 (Public Resources Code, Section 2710 et seq.). The Surface Mining and Reclamation Act requires that an entity seeking to conduct a surface mining operation obtain a permit from and submit a reclamation plan to the lead agency overseeing that operation. To be adequate, the reclamation plan must contain all

categories of information specified in this act. The selected plan for this project may involve activities that would be classified as surface mining. The DWR will coordinate any need for a permit with the State Mining and Geology Board.

### **California Department of Transportation**

The State of California Department of Transportation (Caltrans) is responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as that portion of the Interstate Highway System within the state's boundaries. Construction of alternative 2 would include raising portions of Highway 20, which will be coordinated with Caltrans. Both the construction and design of the road-raising would have to meet Caltrans standards.

**MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM  
RESTORATION PROJECT  
WATER RIGHT APPLICATION  
ATTACHMENT 12  
ENVIRONMENTAL DOCUMENTS**

The U. S. Army Corps of Engineers (USACE) completed and circulated the Draft Integrated Feasibility Report and environmental Impact Statement/Environmental Impact Statement (SCH #20000062024) in April 2002. Comments were received and a Final Report was issued in September 2002. Due to input from the Robinson Rancheria Band of Pomo Indians, a Revised Final was issued in October 2003, copy enclosed on CD.

As CEQA lead agency, the County made the following actions:

- On April 22, 2004, the Lake County Planning Commission held a public hearing, approved the Project, adopted mitigation measures and the Monitoring and Adaptive Management Plan, and reported that the Project is in conformance with the Lake County General Plan.
- On May 11, 2004, the Board of Directors of the Lake County Flood Control and Water Conservation District (since renamed the Lake County Watershed Protection District) approved the Project and the Monitoring and Adaptive Management Plan, and made Findings of Fact. The Board Resolution and the Findings of Fact are included in this appendix.

As NEPA lead agency, the USACE approved the Project and the NEPA study on November 29, 2004. The USACE's approval is included in this appendix.



**MIDDLE CREEK FLOOD DAMAGE REDUCTION AND ECOSYSTEM  
RESTORATION PROJECT  
WATER RIGHT APPLICATION  
ATTACHMENT 13  
ENVIRONMENTAL SETTING**



Aerial Photograph of Project Site looking north-northwest. Clear Lake is in foreground, Rodman Slough is on left, Upper Lake and Middle Creek watershed at top.



Rodman Slough near north end of Project, view to north.





Grebes in Rodman Slough near downstream end of Project. Levee to be abandoned by Project is in background.



Clear Lake





Community of Nice, typical of place of use